FERREIRA et al. Serial No. 09/600,594

## IN THE CLAIMS:

Amend the claims as follows:

## Claims 1-21 (cancelled).

Claim 22. (new) Method of monitoring patient compliance and bioavailability of drugs contained in a body fluid comprising the following steps:

- (a) mixing and shaking mechanically the body fluid with a 0.1 M to 5.0 M aqueous zinc sulfate solution, and an appropriate solvent to extract the drug, to precipitate proteins and strip off bound drug, in a single step, and recovering at least 97% of the drug;
  - (b) centrifuging the mixture of (a), to obtain the separation of phases;
- (c) recovering the supernatant of (b) and measuring, by methods other than immunoassays, the drug concentration in body fluid obtaining drug levels down to at least 0.3µ g/ml.

Claim 23. (new) Method according to claim 22 wherein the concentration of the aqueous zinc sulfate solution ranges from 0.2 M to 1.0 M.

Claim 24. (new) Method according to claim 22 or 23 wherein the appropriate solvent is a polar solvent or a non polar solvent or mixtures thereof.

Claim 25. (new) Method according to claim 24 wherein the nonpolar solvent is an organic solvent selected from the group consisting of acetonitrile/2-propanol, benzene, toluene, dichloromethane, chloroform and mixtures thereof.

Claim 26. (new) Method according to claim 24 wherein the polar solvent is selected from the group consisting of water, an alcohol and a mixture thereof.

Claim 27. (new) Method according to claim 22 wherein an antioxidizing agent is included in step (a).

Claim 28. (new) Method according to claim 22 wherein the measuring comprises a colorimetric assay or a High-Performance Liquid Chromatography method.

Claim 29. (new) Method according to claim 22 or 23 or 27 wherein the drug is rifampicin.

Claim 30. (new) Method according to claim 25 wherein the drug is rifampicin.

Claim 31. (new) Method according to claim 22 wherein the drug is selected from the group consisting of an antimonial, an itraconazole, a proteinase and a reverse transcriptase inhibitor.

Claim 32. (new) Method of monitoring patient compliance and bioavailability of rifampicin contained in a small amount of a body fluid comprising the following steps:

(a) mixing and shaking mechanically the body fluid with a 0.1 M to 5.0 M aqueous zinc sulfate solution, an organic solvent selected from the group consisting of acetonitrile/2-propanol, benzene, toluene, dichloromethane, chloroform and a mixture

thereof, to extract the drug and, optionally, an antioxidizing agent to precipitate proteins and strip off bound drug at same time or in a single step;

- (b) centrifuging the mixture of (a) to obtain the separation of phases;
- (c) recovering the organic phase supernatant of (b) and measuring the drug concentration in said supernatant by using a colorimetric assay or a High-Performance Liquid Chromatography method down to at least 0.3µ g/ml.

Claim 33. (new) Method according to claim 32 wherein the concentration of the aqueous zinc sulfate solution ranges from 0.2 M to 1.0 M.

Claim 34. (new) Method according to claim 32 or 33 wherein the solvent used in step (a) is acetonitrile/2-propanol.

Claim 35. (new) Method according to claim 32 wherein said antioxidizing agent is ascorbic acid.

Claim 36. (new) Method according to claim 32 wherein the rifampicin concentration is determined through spectrophotometric measurement at 340 nm.

Claim 37. (new) Kit for measuring rifampicin concentration in a body fluid containing the following components:

(a) a standard solution of 0.1 M to 5.0 M of aqueous zinc sulfate, optionally, including an antioxidizing agent,

- (b) an organic solvent selected from the group consisting of acetonitrile/2-propanol, benzene, toluene, dichloromethane, chloroform and a mixture thereof;
- (c) a serum standard containing a know amount of rifampicin to prepare a standard curve for user conditions.

Claim 38. (new) Kit according to claim 37 wherein the concentration of the aqueous zinc sulfate solution ranges from 0.2 M to 1.0 M.

Claim 39. (new) Kit according to claim 37 wherein said antioxiding agent is ascorbic acid.

Claim 40. (new) Kit according to claim 37 wherein the organic solvent is acetonitrile/2-propanol.